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With U.S. hardwood sawtimber growth exceeding removals, export markets are attractive. Production, marketing changes needed to improve offshore acceptance, however

Good potential seen for hardwood exports

By Philip A. Araman

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Looking at the inventory of standing hardwood sawtimber and hardwood removals in relation to annual growth, one sees considerable potential to export hardwoods from the United States.

However, major increases in exports to Europe, Canada and Pacific Rim countries at this time are generally restricted by preferences for a relatively few species and by a limited amount of export-quality material. Future export increases depend on the acceptance of less-preferred species, increased logging and lumber production, increased acceptance of "less than perfect" veneer, and increased shipments of strip and dimension stock made from No. 1 and No. 2 Common lumber.

The current situation

Hardwood exports over the last 10 years have been increasing and foreign demand should continue to grow. Principal markets are shown in Fig. 1 by product type: logs, lumber, veneer and plywood. Europe, Canada and the Pacific Rim received at least 94% of the logs, lumber and veneer exported from the U.S. and almost 70% of exported plywood.

Fig. 2 shows principal hardwood species exported, with the same product breakdown. The oaks, red and white, accounted for over 60% of the logs, lumber and veneer exported and led the plywood category with 42%.

U.S. hardwood export trends from 1973 through 1983 are charted in Fig. 3. Lumber exports have more than doubled over this period. Exports of logs, veneer and plywood have increased moderately, except for a drop in log exports in 1982 and 1983.

These trends are traced by product in the three major market areas—Europe, Canada and the Pacific Rim—in Fig. 5 (on p. 36). Some observations:

- Shipments to Europe for all products increased, and there is potential for continued growth.
- Canada is the single country importing the most U.S. hardwoods, although they re-export some lumber to Europe and other areas and export veneer cut from U.S. logs to Europe and other areas and back to the U.S.
- Exports of veneer and lumber have increased dramatically to the Pacific Rim area since 1977. Log exports peaked in 1974, dropped in 1975 and 1976 but have increased steadily since that time. This marketing area may have the greatest potential for growth.

The U.S. and the world

Figures for 1981 show the U.S. hardwood sawmill industry is the largest in the world, at 7 billion bd ft producing 15% of total sawn hardwoods. The USSR and India are the next two largest producers, with 11% and 9% respectively, but they are not major hardwood exporters. China, Brazil and Japan follow, each with about 7% of the total, but

FIG. 1—Principal hardwood product export markets

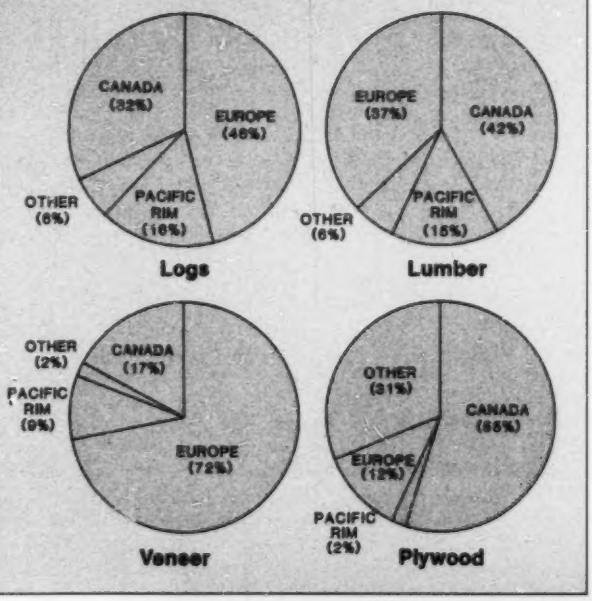

FIG. 2—Principal species exported by product type

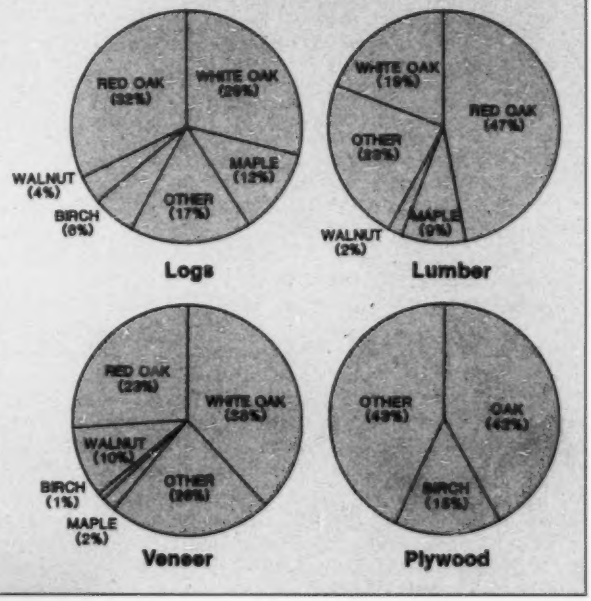

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FIG. 3—U.S. hardwood product export trends from 1973-1983

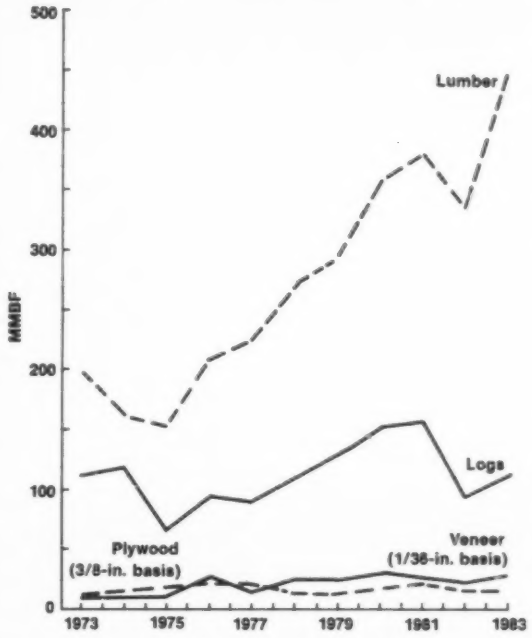
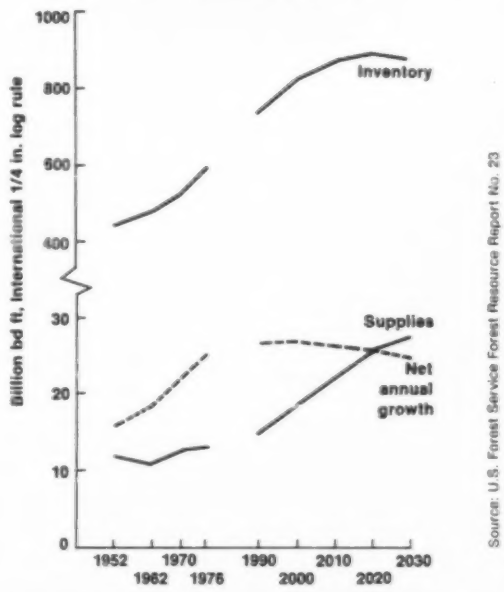


FIG. 4—Hardwood supplies, annual growth, and inventory

1952-1976, with projections (base level) to 2030



of the three only Brazil is a significant hardwood lumber exporter.

The U.S. ranked fourth in the world as a sawn hardwood exporter that year, according to the *FAO Yearbook of Forest Products*, exporting about 5% of annual production. The U.S. was the No. 1 exporter of temperate hardwoods.

On the resource side, the U.S. continues to have an abundant inventory of hardwoods, as noted in Fig. 4. Sawtimber inventories have been increasing because use has been far less than the net annual growth.

Hardwood sawtimber inventory in 1976 was around 600 billion bd ft, including approximately 57 billion bd ft of western hardwoods. At the same time, net annual growth in sawtimber was more than double the harvest volume. The U.S. Forest Service projects net annual growth in excess of removals until 2020, when sawtimber inventory will be about 900 billion bd ft.

What about quality?

McLintock (1983) compiled, from survey information, sawlog quality in standing timber for the 17 eastern states (Table 1). In logs, he found only 33% in Grades 1 and 2, leaving 67% in Grades 3 and 4. Thus the overall quality of the resource is not that good.

Given the "in-the-woods" log grade mix, we estimated the "at-the-sawmill" log grade mix, or what sawmillers accept. Sawmillers often refuse Grades 3 and 4 logs, and veneer mills get many of the Grade 1 logs. Therefore, sawmillers use a higher grade mix than the "in-the-woods" distribution, as Table 1 shows.

Applying the oak tables in NE-468 by Hanks et al. (1980), we obtained the "lumber yields" shown in Table 1. From our estimates, only 40% of the lumber produced is No. 1 Common and Better.

Generally speaking, FAS and SEL (Select) grades of lumber are exportable to Europe if they are square-edged and bark-free. Some No. 1 Common can be remanufactured and upgraded to export market specifications, and some No. 1 Common is exported along with SEL in a grade mix called COMSEL.

Canadian and Pacific Rim importers are not as insistent on top-quality mate-

TABLE 1—Sawtimber quality and lumber yield estimates

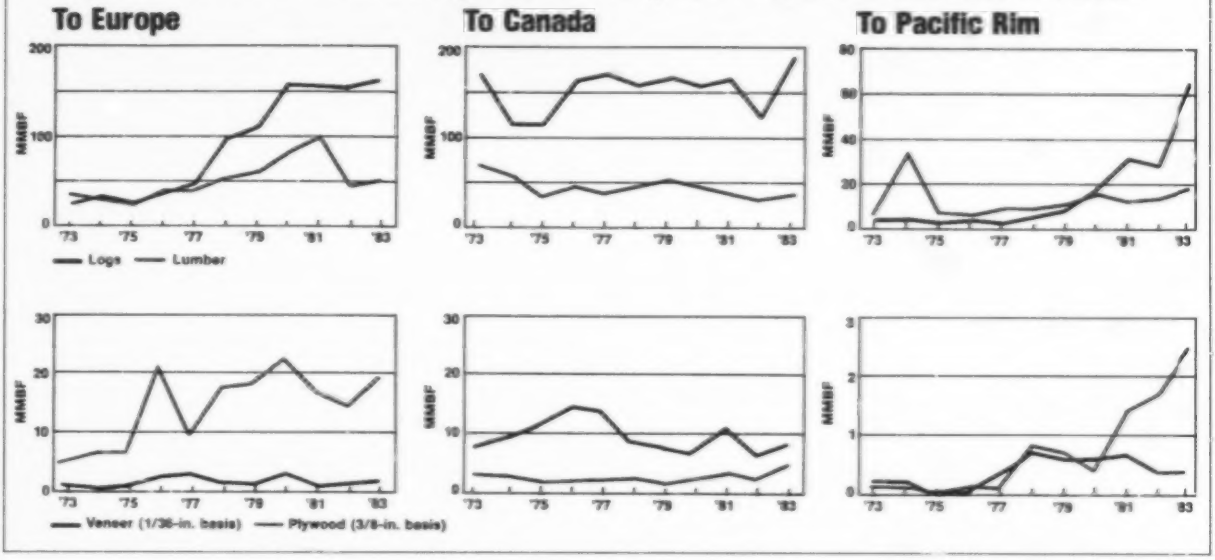
In the woods		At the sawmill		Lumber yields		
Log grade	% of sawtimber	Log grade	% of logs	Grade	%	
1	13	1	20	FAS	8	
2	20	2	35	SEL	7	
3	47	3 & 4	45	1C	25	
4	20			2C	28	} 60
				Below 2C	32	

TABLE 2—U.S. and world demand index for hardwood lumber, 1970-2000

10-year period	U.S. demand	World demand	World import demand*
1970-1980	0	+12	+38
1980-1990	+39**	+23	+47
1990-2000	+14	+17	+30

* Excludes U.S. demand.
** Considered high by some industry sources.
Source: National Forest Products Assn.

FIG. 5—U.S. hardwood product export trends from 1973-1983



rial and purchase No. 1 Common and Better lumber. However, since domestic demand for this limited, high-and-medium quality material is generally keen, there is not a great volume of readily-available lumber in the major fine hardwood species for the export market.

U.S. forests produce an excellent variety of hardwood species to offer on the export market. However, this excellent variety is not being exported. The U.S. needs to export more species than just the highly-demanded select red and white oaks which account for about 19% of standing sawtimber.

Future demand

Forecasts for the future are optimistic. The past and future world demand for hardwood lumber, as estimated by National Forest Products Assn. (1981), is shown in Table 2. World and U.S. demand are predicted to increase 28% and 39%, respectively, in the 1980s, and 17% and 14% in the 1990s.

World import demand (excluding U.S.) for hardwood lumber, which increased dramatically in the 1970s, is forecast to continue increasing through the 1990s. Much of this demand is centered in Europe and the Pacific Rim.

How to increase exports

U.S. hardwood exports can increase because:

- Forests contain an excellent variety of hardwoods and an abundant inventory of hardwood trees.
- Wood growth exceeds use.
- The U.S. is the No. 1 producer of sawn hardwoods in the world.
- Export demands have been increasing, and this trend should continue.

However, for U.S. hardwood exports to increase, the industry must:

- Provide foreign customers with products they need and not only what mills produce for domestic use.
- Increase the number of companies willing to export or get more hardwood to current exporters.
- Be willing to commit a percentage of production to the export market.
- Export more upgraded lumber, more strip stock, more dimension stock (edge-glued panels or blanks and dimension parts), "less-than-perfect" veneer, and a wider variety of species.
- Remain competitive in the international marketplace.

The following research is needed to achieve the goal of increasing hardwood exports:

- Determine the effects of rules, tariff and non-tariff barriers, subsidies, and other institutional constraints upon trade.
- Determine the effects of such factors as exchange rates, prices of substitute species, production costs, ocean freight rates and other economic variables on the export market for hardwood products.
- Determine the needs and specifications, process requirements and economic potential for value-added hardwood products in Europe and Pacific Rim market areas.
- Determine the degree to which less-preferred species can be substituted and merchandised in international trade.
- Identify market opportunities for hardwoods in higher, value-added forms such as strip stock, edge-glued panels or blanks, and dimension parts.
- Develop guidelines to aid producers in evaluating and entering international markets.
- Assess and overcome problems of financial resources that inhibit the export of hardwood products.
- Assess the financial risks associated with export marketing and develop means for their quantification and elimination.
- Assess the potential of export trading companies. ■

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